



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,363	10/14/2003	Gerhard Hartner	HARTNER-1	4401

7590 09/01/2005

Kurt Kelman
COLLARD & ROE, P.C.
1077 Northern Boulevard
Roslyn, NY 11576

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,363

Applicant(s)

HARTNER, GERHARD

Examiner

Jennifer A. Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/14/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1 - 8 are objected to because of the following informalities: Claims 1 – 8 use the language “characterized in that” making the claim language awkward. Please use traditional transitional phrases such as “comprising”, “consisting essentially of” or “consisting of”.

Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informalities: in paragraph 3 of page 2 of the Specification, the Applicant indicates that the sinterable fibers are preferably *polyamide* fibers. Based on the rest of the disclosure, the Examiner believes that the Applicant intends to require that the sinterable fibers are preferably *polyimide* fibers. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim

Art Unit: 1771

does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 6 recites the broad recitation "a surface made of sinterable fibers", and the claim also recites "preferably polyimide fibers" which is the narrower statement of the range/limitation. For the purposes of examination at this time, the Examiner will not give patentable weight to "preferably polyimide fibers" and will interpret the claim to only require a surface of sinterable fibers. Please amend.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Takamatsu et al. (US 5,336,557).

Takamatsu is directed to a carbon fiber felting material and process for producing the

Art Unit: 1771

same (Title).

As to claim 1, Takamatsu teaches a carbon fiber felting material (column 2, lines 45 – 55). Takamatsu teaches that the carbon fiber felting material can be self-bonded at the time of carbonization to keep the morphology felty (column 4, lines 60 – 69). Takamatsu teaches that the material can be needle-punched while being self-bonded (column 4, lines 63 – 69), which would result in Applicant's "porous fiber layer". As discussed in step (d) for producing the carbon fiber felting material, the material can undergo an infusiblization treatment at a temperature of 200 – 400 degrees Celsius (column 8, lines 25 – 30). The Examiner equates the resulting material from the infusiblization treatment to Applicant's "sintered fiber structure".

As to claim 2, Takamatsu teaches that the carbon fiber can be produced with a polyacrylonitrile precursor (column 3, lines 55 – 60).

As to claims 3 - 4, Takamatsu teaches that the felting material can be needled (column 8, lines 40 – 69).

As to claim 6, Takamatsu teaches that a necessary number of the resulting infusiblized and carbonized fiber sheets are piled up and are subjected to a physical entanglement process (column 8, lines 40 – 50).

As to claim 8, Takamatsu teaches that the felting material undergoes a infusiblization treatment, equated to Applicant's "sintering", and then a carbonization treatment (column 8, lines 20 – 40).

It should be noted that the preamble "a friction lining" is not given any patentable weight at this time. It has been held that a recitation with respect to the manner in which a claimed

Art Unit: 1771

article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The burden is upon the Applicant to prove otherwise.

8. Claims 1 - 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al. (US 5,229,184).

Campbell is directed to heat shrinkable fibers and products therefrom (Title).

As to claim 1, Campbell teaches a fibrous structure such as a non-woven felt (column 2, lines 25 – 30) having a major portion comprising polyimide fibers (column 2, lines 55 – 65). According to Applicant's Specification, polyimide fibers are sinterable fibers. Campbell teaches that the fibrous structure comprising a major portion of polyimide fibers may be heated at a temperature ranging from 100 – 370 degrees Celsius and at a time sufficient to obtain an adequate fiber to fiber bonding (column 4, lines 15 – 25). The Examiner equates this heating step to bond the fibers to Applicant's "sintering".

As to claim 2, Campbell teaches that the fibrous structure can comprise a major portion of polyimide fibers (column 2, lines 55 – 65).

As to claims 3 - 6, Campbell teaches that the fibrous structure can be in the form of a needled fibrous batt or knitted fabric in a single layer or multiple layer configuration (column 2, lines 20 – 35). It should be noted that one layer in the multiple layer configuration can be Applicant's "fiber layer" and another layer can be Applicant's "surface of sinterable fibers".

It should be noted that the preamble “a friction lining” is not given any patentable weight at this time. It has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). The burden is upon the Applicant to prove otherwise.

9. Claims 1 - 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinrotter et al. (US 5,271,889).

Weinrotter is directed to a flame retardant high-temperature-resistant polyimide fibers and molded article manufactured therefrom (Title).

As to claim 1, Weinrotter teaches a fibrous article comprising polyimide fibers which is heated to a temperature near the fibers' glass transition temperature between 280 – 350 degrees Celsius to create cohesive bonds between the fibers (column 3, lines 45 – 50). The Examiner equates this heating step to Applicant's “sintering”.

As to claim 2, Weinrotter teaches that the fibrous article comprises polyimide fibers (Title).

As to claims 3 – 6, Weinrotter teaches that the fibrous article can be a needled nonwoven or a knit in a single or multiple layer form (column 3, lines 55 – 69). It should be noted that one layer in the multiple layer configuration can be Applicant's “fiber layer” and another layer can be Applicant's “surface of sinterable fibers”.

Art Unit: 1771

It should be noted that the preamble “a friction lining” is not given any patentable weight at this time. It has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). The burden is upon the Applicant to prove otherwise.

10. Claims 1 – 3 and 7 - 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamoto et al. (US 5,202,293).

Okamoto is directed to a carbon fiber reinforced carbon (Title).

As to claim 1, Okamoto teaches creating a non-woven fabric (column 2, lines 60 – 63) comprising a precursor carbonaceous fiber and a self-sintering carbonaceous powder (Abstract). Okamoto teaches that the composite body is sintered (column 4, lines 1 – 10).

As to claim 2, Okamoto teaches that the precursor carbonaceous fibers can comprise polyacrylonitrile (column 2, lines 10 – 20).

As to claim 3, Okamoto teaches that the structure can be a non-woven fabric (column 2, lines 60 – 63).

As to claim 7, Okamoto teaches that the structure comprises carbon powder (Abstract). It should be noted that any filling materials would “influence the frictional properties”. The Applicant has provided no guidance in the Specification as to what particular filling materials would “influence the frictional properties”. Therefore, the Examiner submits that the carbon powder can be equated to Applicant’s “filling materials”.

Art Unit: 1771

As to claim 8, Okamoto teaches that after the material is sintered, the material can be graphitized (column 4, lines 10 – 15). The Examiner equates the graphitizing to Applicant's "carbonization".

It should be noted that the preamble "a friction lining" is not given any patentable weight at this time. It has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). The burden is upon the Applicant to prove otherwise.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

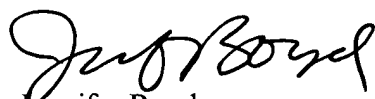
Vodiunig et al. (US 5,178,810) is directed to a process for making flame retardant high temperature resistant shaped articles (Title). The articles are made of polyimide fibers and be in the form of nonwoven or needle felts (column 2, lines 55 – 65). The article can be heat treated at a temperature range of 280 – 360 degrees Celsius (column 2, lines 35 – 60). Vodiunig fails to teach the limitations of all the dependent claims.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer Boyd
August 24, 2005


Ula C. Ruddock
Primary Examiner
Tech Center 1700